



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Marc ALIZON et al.) Group Art Unit: 1637
Application No.: 07/158,652) Examiner: Jeffrey Norman Fredman
Filed: February 22, 1988) Confirmation No.: 3369
)

For: CLONED DNA SEQUENCE RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REQUEST TO CORRECT INVENTORSHIP

Pursuant to 37 C.F.R. § 1.48, applicants request that the inventorship in this application be corrected as follows.

Pursuant to 37 C.F.R. § 1.48 (c), please add the following inventors to this application:

Robert C. Gallo,
Milkulas Popovic,
Mangalasseri G. Sarnagadharan,
Solange Chamaret,
Claudine Axler-Bin,
Francoise Rey,
Marie-Therese Nugeyre,
Jacqueline Gruest,
Charles Dauget,
Willy Rozenbaum,
Christine Rouzioux,
Francoise Brun-Vezinet,
Luc Montagnier,
Jean-Claude Chermann,

06/06/2006 JADDO1 00000042 07158652
03 FC:1464 130.00 OP

BEST AVAILABLE COPY

Francoise Barre-Sinoussi, and
Pierre Tiollais.

The addition of the above-named inventors is necessitated by amendment of the claims during prosecution of this application.

A statement from each person being added as an inventor that the addition is necessitated by amendment of the claims and that the inventorship error occurred without deceptive intent is enclosed.

A Declaration by each of the actual inventors is enclosed. One copy of the application is enclosed, although each Declaration was attached to a copy of the application when it was executed. The duplicate copies of the application have been removed to reduce the size of the submission, but will be provided by applicants if the Examiner requires them.

The written consent of each of the assignees is enclosed.

A check for the required fee of \$130.00 under §1.17(i) is enclosed

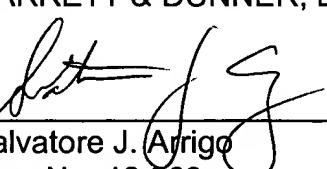
Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: June 5, 2006

By: _____



Salvatore J. Arrigo
Reg. No. 46,063
Telephone: 202-408-4160
Facsimile: 202-408-4400
E-mail: arrigos@finnegan.com



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Marc ALIZON et al.

Application No.: 07/158,652

Filed: February 22, 1988

) Group Art Unit: 1637
)
)
)
)
)
)

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF SOLANGE CHAMARET
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I am informed that a copy of claims 142-151 is attached hereto.

I have read claims 142-151, which I am informed were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

The inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: S. Chanak

Date: 8h - 05. - 06

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

	5670	5680	5690	5700	
	A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA	
5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTCT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG

6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCTCCCC
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAAGTGA	ATTATATAAA	TATAAAAGTAG	TAAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCGC	ACGGTCAATG	ACGCTGACGG

7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCCTTA	ATTGAAGAAC	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATT	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACCTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1

(HIV-1), wherein the DNA comprises the sequence

CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

5700
ATGAGAGTGA

5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTC	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAC
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGAAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6230	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG
6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAAACCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAC	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC

6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAAT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAATCTC

7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTAAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTAA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

144. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6100	6110	6120			
GAATGC	TACTAATACC	AATAGTAGTA			
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200				
TCAATATCAG	CACAAGCATA.				

145. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGA ACAGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATATAA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

6610 6620
CCAACAAACAÀ TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAAATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Marc ALIZON et al.

Application No.: 07/158,652

Filed: February 22, 1988

) Group Art Unit: 1637
) Examiner: Jeffrey N. Fredman
) Confirmation No.: 3369
)

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF CLAUDINE AXLER-BLIN
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I am informed that a copy of claims 142-151 is attached hereto.

I have read claims 142-151, which I am informed were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

The inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: Claudine Axler-Blair

Date: 26 Mai 2006

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

	5670	5680	5690	5700	
	A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA	
5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAC
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGAAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG

6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAAC	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCAC	ACGGTCAATG	ACGCTGACGG

7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTCCAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCTTA	ATTGAAGAAC	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGCAAGTT	TGTGGAATTG	GTAAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTAA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACCTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

						5700
						ATGAGAGTGA
5710	5720	5730	5740	5750	5760	
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA	
5770	5780	5790	5800	5810	5820	
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGTCAC	AGTCTATTAT	GGGGTACCTG	
5830	5840	5850	5860	5870	5880	
TGTGGAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG	
5890	5900	5910	5920	5930	5940	
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG	
5950	5960	5970	5980	5990	6000	
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA	
6010	6020	6030	6040	6050	6060	
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC	
6070	6080	6090	6100	6110	6120	
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGGAATGC	TACTAATACC	AATAGTAGTA	
6130	6140	6150	6160	6170	6180	
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT	
6190	6200	6210	6220	6230	6240	
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC	
6250	6260	6270	6230	6290	6300	
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT	
6310	6320	6330	6340	6350	6360	
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG	
6370	6380	6390	6400	6410	6420	
CCCCGGCTGG	TTTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT	
6430	6440	6450	6460	6470	6480	
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC	
6490	6500	6510	6520	6530	6540	
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG	
6550	6560	6570	6580	6590	6600	
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC	

6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCTCCCC
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAAT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAAATCTC

7570	7580	7590	7600	7610	7620
TTGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTAAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATT	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCAGG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCGAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

144. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
 CTCAAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6100	6110	6120			
GAATGC	TACTAATACC	AATAGTAGTA			
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200				
TCAATATCAG	CACAAGCATA.				

145. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGA ACAGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATATAA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

6610 6620
CCAACAAACAA TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCATAAAAGCTTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAAATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Marc ALIZON et al.

Application No.: 07/158,652

Filed: February 22, 1988

) Group Art Unit: 1637
)
)
)
)
)
)

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF FRANÇOISE REY
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I am informed that a copy of claims 142-151 is attached hereto.

I have read claims 142-151, which I am informed were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

The inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: 

Date: 18 May 2006

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTGCCTTG, and the DNA comprises the sequence:

	5670	5680	5690	5700	
	A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA	
5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTCT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAC
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGAAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG

6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAC	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAAC	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCAGCAG
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCAG	ACGGTCAATG	ACGCTGACGG

7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTCCAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAC	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTAAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTGAGATTG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACCTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCATAAAAGCTTGCCTTG, and the DNA comprises the sequence:

						5700
					ATGAGAGTGA	
5710	5720	5730	5740	5750	5760	
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA	
5770	5780	5790	5800	5810	5820	
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGTCAC	AGTCTATTAT	GGGGTACCTG	
5830	5840	5850	5860	5870	5880	
TGTGGAAGGA	AGCAACCACC	ACTCTATTTC	GTGCATCAGA	TGCTAAAGCA	TATGATACAG	
5890	5900	5910	5920	5930	5940	
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAC	
5950	5960	5970	5980	5990	6000	
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA	
6010	6020	6030	6040	6050	6060	
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC	
6070	6080	6090	6100	6110	6120	
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGAAATGC	TACTAATACC	AATAGTAGTA	
6130	6140	6150	6160	6170	6180	
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT	
6190	6200	6210	6220	6230	6240	
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC	
6250	6260	6270	6280	6290	6300	
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT	
6310	6320	6330	6340	6350	6360	
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG	
6370	6380	6390	6400	6410	6420	
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT	
6430	6440	6450	6460	6470	6480	
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAAATCAAC	
6490	6500	6510	6520	6530	6540	
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAC	AGGTAGTAAT	TAGATCTGCC	AATTCACAG	
6550	6560	6570	6580	6590	6600	
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC	

6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAAT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAATCTC

7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTAAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATT	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACTAAG	AA.		

144. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6100	6110	6120			
GAATGC	TACTAATACC	AATAGTAGTA			
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200				
TCAATATCAG	CACAAGCATA.				

145. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGA ACAGGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATATAA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

6610 6620
CCAACAAACAA TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCATAAAAGCTTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAAATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Marc ALIZON et al.

Application No.: 07/158,652

Filed: February 22, 1988

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

) Group Art Unit: 1637
)
)
Examiner: Jeffrey N. Fredman
)
Confirmation No.: 3369
)
)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF MARIE-THERESE NUGEYRE
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I am informed that a copy of claims 142-151 is attached hereto.

I have read claims 142-151, which I am informed were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

The inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: *ATI Aerospace*

Date: *May 29 2006*

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

	5670	5680	5690	5700	
	A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA	
5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTC	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGGAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATATA	CATTATTGTG

6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTTCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAAC	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGCGC	ACGGTCAATG	ACGCTGACGG

7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCCTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTAA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTGAGATTG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACCTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1

(HIV-1), wherein the DNA comprises the sequence

CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

5700
ATGAGAGTGA

5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGGAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6230	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG
6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC

6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAAT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAAATCTC

7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTAA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCGAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

144. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
 CTCATAAAGCTTGCCTTG, and the DNA comprises the sequence:

6100	6110	6120			
GAATGC	TACTAATACC	AATAGTAGTA			
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200				
TCAATATCAG	CACAAGCATA.				

145. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGA ACAGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATATAA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

6610 6620
CCAACAAACAA TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCATAAAAGCTTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Marc ALIZON et al.

Application No.: 07/158,652

Filed: February 22, 1988

) Group Art Unit: 1637
)
)
Examiner: Jeffrey N. Fredman
)
Confirmation No.: 3369
)
)

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT ON BEHALF OF JACQUELINE GRUEST
(Being Added As An Inventor)

I, JACQUES GRUEST, am the heir of the estate of JACQUELINE GRUEST, who is deceased.

I have been informed that Jacqueline Gruest was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I have been informed that a copy of claims 142-151 is attached hereto.

I have been informed that claims 142-151 were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I have been informed that Jacqueline Gruest is being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that the addition of Jacqueline Gruest as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

On information and belief, the inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on the part of Jacqueline Gruest.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: _____


JACQUES GRUEST
Heir of the Estate of Jacqueline Gruest

Date: 25.05.2006

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

	5670	5680	5690	5700	
	A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA	
5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAC
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTAAAG	TGCACTGATT	TGGGAAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAAGT	TGTAACACCT

6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG
6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCAGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAC
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAC	AGGTAGTAAT	TAGATCTGCC	AATTTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAAC	ATTTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	AAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT

7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGGCGCA	ACAGCATCTG	TTGCAAACCTA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTGAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAC	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATT	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

5700
ATGAGAGTGA

5710	5720	5730	5740	5750	5760
AGGAGAAAATA	TCAGCACCTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTC	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTAAAG	TGCACTGATT	TGGGAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG
6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC

6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCCAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCAG	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCCAA

7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTCCAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACCTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACTAAAG	AA.		

144. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6100 6110 6120
GAATGC TACTAATACC AATAGTAGTA

6130 6140 6150 6160 6170 6180
ATACCAATAG TAGTAGCGGG GAAATGATGA TGGAGAAAGG AGAGATAAAA AACTGCTCTT

6190 6200
TCAATATCAG CACAAGCATA.

145. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGA ACAGGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV 1), wherein the DNA comprises the sequence CTCATAAAGCTTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATAATA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

6610 6620
CCAACAAACAA TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV 1), wherein the DNA comprises the sequence CTCATAAAGCTTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV 1), wherein the DNA comprises the sequence CTCATAAAGCTTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAATT ACAATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Marc ALIZON et al.

Application No.: 07/158,652

Filed: February 22, 1988

) Group Art Unit: 1637
) Examiner: Jeffrey N. Fredman
) Confirmation No.: 3369
)
)

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF CHARLES DAUGUET
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I am informed that a copy of claims 142-151 is attached hereto.

I have read claims 142-151, which I am informed were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

The inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: Charles Dauguet

Date: 26 Mai 2008

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTGCCTTG, and the DNA comprises the sequence:

	5670	5680	5690	5700	
	A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA	
5710	5720	5730	5740	5750	5760
AGGAGAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTC	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGAAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG

6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAAC	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCTCCCC
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAAGTAG	TAAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCAG	ACGGTCAATG	ACGCTGACGG

7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTCCAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCCTTA	ATTGAAGAAC	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATT	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTGAGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACCTCT	GGGACGCGAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAAATAAGCTTGCCTTG, and the DNA comprises the sequence:

						5700
						ATGAGAGTGA
5710	5720	5730	5740	5750	5760	
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA	
5770	5780	5790	5800	5810	5820	
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG	
5830	5840	5850	5860	5870	5880	
TGTGGAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG	
5890	5900	5910	5920	5930	5940	
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG	
5950	5960	5970	5980	5990	6000	
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA	
6010	6020	6030	6040	6050	6060	
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC	
6070	6080	6090	6100	6110	6120	
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGGAATGC	TACTAATACC	AATAGTAGTA	
6130	6140	6150	6160	6170	6180	
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT	
6190	6200	6210	6220	6230	6240	
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC	
6250	6260	6270	6230	6290	6300	
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT	
6310	6320	6330	6340	6350	6360	
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG	
6370	6380	6390	6400	6410	6420	
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT	
6430	6440	6450	6460	6470	6480	
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC	
6490	6500	6510	6520	6530	6540	
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG	
6550	6560	6570	6580	6590	6600	
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC	

6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCCGA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAATC	CATTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAAATCTC

7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTAAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATT	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCGAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

144. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6100	6110	6120			
GAATGC	TACTAATACC	AATAGTAGTA			
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200				
TCAATATCAG	CACAAGCATA.				

145. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGA ACAGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATATAA GTACAGCTGA ACCAATCTGT AGAAATTAAAT TGTACAAGAC

6610 6620
CCAACAAACAA TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAAATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Marc ALIZON et al.

Application No.: 07/158,652

Filed: February 22, 1988

) Group Art Unit: 1637
)
)
)
)
)
)

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF WILLY ROZENBAUM
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I am informed that a copy of claims 142-151 is attached hereto.

I have read claims 142-151, which I am informed were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

The inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By:

Date:


W. ROSENZWEIG

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

	5670	5680	5690	5700	
	A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA	
5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGAAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG

6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTTCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAAC	ATTTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAAGTAG	TAAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGCGC	ACGGTCAATG	ACGCTGACGG

7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAAATCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAAT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTAA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

						5700
						ATGAGAGTGA
5710	5720	5730	5740	5750	5760	
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA	
5770	5780	5790	5800	5810	5820	
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG	
5830	5840	5850	5860	5870	5880	
TGTGGAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG	
5890	5900	5910	5920	5930	5940	
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAC	
5950	5960	5970	5980	5990	6000	
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA	
6010	6020	6030	6040	6050	6060	
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC	
6070	6080	6090	6100	6110	6120	
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGGAATGC	TACTAATACC	AATAGTAGTA	
6130	6140	6150	6160	6170	6180	
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT	
6190	6200	6210	6220	6230	6240	
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC	
6250	6260	6270	6230	6290	6300	
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT	
6310	6320	6330	6340	6350	6360	
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG	
6370	6380	6390	6400	6410	6420	
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT	
6430	6440	6450	6460	6470	6480	
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC	
6490	6500	6510	6520	6530	6540	
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG	
6550	6560	6570	6580	6590	6600	
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC	

6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCC
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAAT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAAATCTC

7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTAAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTGAGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACCTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

144. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
 CTCATAAGCTTGCCTTG, and the DNA comprises the sequence:

6100	6110	6120			
GAATGC	TACTAATACC	AATAGTAGTA			
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200				
TCAATATCAG	CACAAGCATA.				

145. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGGA ACAGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATATAA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

6610 6620
CCAACAAACAA TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAAATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Marc ALIZON et al.

Application No.: 07/158,652

Filed: February 22, 1988

) Group Art Unit: 1637
) Examiner: Jeffrey N. Fredman
) Confirmation No.: 3369
)

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF FRANÇOISE BRUN-VEZINET
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I am informed that a copy of claims 142-151 is attached hereto.

I have read claims 142-151, which I am informed were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

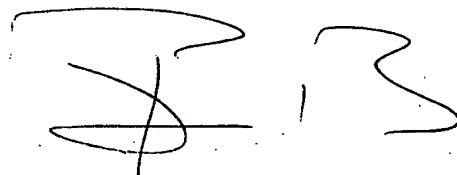
I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

The inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: *François Brun - Ve'zinet*

Date: *30/05/06*



U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

	5670	5680	5690	5700	
	A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA	
5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTC	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTTAAAG	TGCAC TGATT	TGGGGAAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6230	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG

6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTATATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAAGTGA	ATTATATAAA	TATAAAAGTAG	TAAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCGC	ACGGTCAATG	ACGCTGACGG

7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACCT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATT	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTGAGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

5700
ATGAGAGTGA

5710	5720	5730	5740	5750	5760
AGGAGAAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTAAAG	TGCACTGATT	TGGGGAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6230	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG
6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC

6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAAC	CATTTGCACC	ACTGCTGTGC	CTTGAATGC	TAGTTGGAGT	AATAAAATCTC

7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTAAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACCTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACTAAAG	AA.		

144. A cloned DNA of Human Immunodeficiency Virus Type 1
 (HIV-1), wherein the DNA comprises the sequence
 CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

6100	6110	6120			
GAATGC	TACTAATACC	AATAGTAGTA			
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200				
TCAATATCAG	CACAAGCATA.				

145. A cloned DNA of Human Immunodeficiency Virus Type 1
(HIV-1), wherein the DNA comprises the sequence

CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1
(HIV-1), wherein the DNA comprises the sequence

CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGAA ACAGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1
(HIV-1), wherein the DNA comprises the sequence

CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATAATA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

6610 6620
CCAACAACAA TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1
(HIV-1), wherein the DNA comprises the sequence

CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAAATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.

PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



In re Application of:

Marc ALIZON et al.

Application No.: 07/158,652

Filed: February 22, 1988

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

) Group Art Unit: 1637
)
)
Examiner: Jeffrey N. Fredman
)
Confirmation No.: 3369
)
)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF CHRISTINE ROUZIOUX
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I am informed that a copy of claims 142-151 is attached hereto.

I have read claims 142-151, which I am informed were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

The inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: Christine Rovzony
Christine
Date: 30 05 2006

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

	5670	5680	5690	5700	
	A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA	
5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTCT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTAAAG	TGCACTGATT	TGGGAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG

6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCAC	ACGGTCAATG	ACGCTGACGG

7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCCTTA	ATTGAAGAAC	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTAA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

5700
ATGAGAGTGA

5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAC
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGGAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6230	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG
6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC

6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAATCT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAAATCTC

7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTAAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA..		

144. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6100	6110	6120			
GAATGC	TACTAATACC	AATAGTAGTA			
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200				
TCAATATCAG	CACAAGCATA.				

145. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGA ACAGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATATAA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

6610 6620
CCAACAAACAA TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAAATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Marc ALIZON et al.

Application No.: 07/158,652

Filed: February 22, 1988

) Group Art Unit: 1637
)
)
Examiner: Jeffrey N. Fredman
)
Confirmation No.: 3369
)
)

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF LUC MONTAGNIER
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I am informed that a copy of claims 142-151 is attached hereto.

I have read claims 142-151, which I am informed were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

The inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: 

Date: May 26 2006

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

	5670	5680	5690	5700	
	A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA	
5710	5720	5730	5740	5750	5760
AGGAGAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGAAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG

6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAAC	ATTTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCAC	ACGGTCAATG	ACGCTGACGG

7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAAATCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAAT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCCTTA	ATTGAAGAAC	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCCATTA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

						5700
						ATGAGAGTGA
5710	5720	5730	5740	5750	5760	
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA	
5770	5780	5790	5800	5810	5820	
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGTCAC	AGTCTATTAT	GGGGTACCTG	
5830	5840	5850	5860	5870	5880	
TGTGGAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG	
5890	5900	5910	5920	5930	5940	
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG	
5950	5960	5970	5980	5990	6000	
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA	
6010	6020	6030	6040	6050	6060	
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC	
6070	6080	6090	6100	6110	6120	
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGGAATGC	TACTAATACC	AATAGTAGTA	
6130	6140	6150	6160	6170	6180	
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT	
6190	6200	6210	6220	6230	6240	
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC	
6250	6260	6270	6230	6290	6300	
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT	
6310	6320	6330	6340	6350	6360	
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG	
6370	6380	6390	6400	6410	6420	
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT	
6430	6440	6450	6460	6470	6480	
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC	
6490	6500	6510	6520	6530	6540	
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG	
6550	6560	6570	6580	6590	6600	
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC	

6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAATC	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAAATCTC

7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTAAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTAA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTGAGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCGAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACAAAG	AA.		

144. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
 CTCATAAGCTTGCCTTG, and the DNA comprises the sequence:

6100	6110	6120			
GAATGC	TACTAATACC	AATAGTAGTA			
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200				
TCAATATCAG	CACAAGCATA.				

145. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGA ACAGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATATAA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

6610 6620
CCAACAAACAA TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAAATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Marc ALIZON et al.

Application No.: 07/158,652

Filed: February 22, 1988

) Group Art Unit: 1637
)
)
Examiner: Jeffrey N. Fredman
)
Confirmation No.: 3369
)
)

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF JEAN-CLAUDE CHERMANN
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I am informed that a copy of claims 142-151 is attached hereto.

I have read claims 142-151, which I am informed were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

The inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: Jean Claude Chervenac
Date: May 26 06

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTCCTTG, and the DNA comprises the sequence:

	5670	5680	5690	5700	
	A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA	
5710	5720	5730	5740	5750	5760
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTC	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTAAAG	TGCACTGATT	TGGGAAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT

6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG
6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAC	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT

7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCCTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATT	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACCTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

						5700
						ATGAGAGTGA
5710	5720	5730	5740	5750	5760	
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA	
5770	5780	5790	5800	5810	5820	
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTAC	AGTCTATTAT	GGGGTACCTG	
5830	5840	5850	5860	5870	5880	
TGTGGAAGGA	AGCAACCACC	ACTCTATTTC	GTGCATCAGA	TGCTAAAGCA	TATGATACAG	
5890	5900	5910	5920	5930	5940	
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG	
5950	5960	5970	5980	5990	6000	
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA	
6010	6020	6030	6040	6050	6060	
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC	
6070	6080	6090	6100	6110	6120	
CACTCTGTGT	TAGTTAAAG	TGCACTGATT	TGGGGAATGC	TACTAATACC	AATAGTAGTA	
6130	6140	6150	6160	6170	6180	
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT	
6190	6200	6210	6220	6230	6240	
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC	
6250	6260	6270	6280	6290	6300	
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT	
6310	6320	6330	6340	6350	6360	
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG	
6370	6380	6390	6400	6410	6420	
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT	
6430	6440	6450	6460	6470	6480	
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC	

6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCCAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCCAA

7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACCTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

144. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6100 6110 6120
GAATGC TACTAATACC AATAGTAGTA

6130 6140 6150 6160 6170 6180
ATACCAATAG TAGTAGCGGG GAAATGATGA TGGAGAAAGG AGAGATAAAA AACTGCTCTT

6190 6200
TCAATATCAG CACAAGCATA.

145. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGA ACAGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV 1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA ACCATAATA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

6610 6620
CCAACAAACAA TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV 1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV 1), wherein the DNA comprises the sequence CTCAATAAGCTTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAAATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Marc ALIZON et al.) Group Art Unit: 1637
Application No.: 07/158,652) Examiner: Jeffrey N. Fredman
Filed: February 22, 1988) Confirmation No.: 3369
For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF FRANÇOISE BARRE-SINOUSSI
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I am informed that a copy of claims 142-151 is attached hereto.

I have read claims 142-151, which I am informed were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

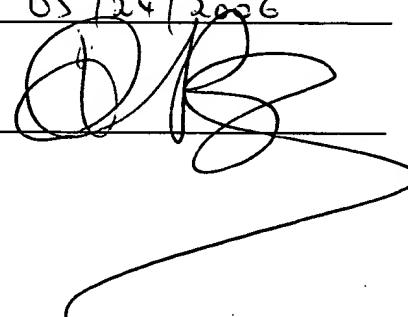
I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

The inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: 05/24/2006

Date: 

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

5670	5680	5690	5700		
A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA		
5710	5720	5730	5740	5750	5760
AGGAGAAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTC	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTAAAG	TGCACTGATT	TGGGAAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAAGT	TGTAACACCT

6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG
6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCAGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAC
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAC	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAAC	ATTTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	AAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT

7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTAAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

5700
ATGAGAGTGA

5710	5720	5730	5740	5750	5760
AGGAGAAAATA	TCAGCACCTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTC	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTAAAG	TGCACTGATT	TGGGGAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6280	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG
6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC

6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCAG	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA

7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTCCAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCCTTA	ATTGAAGAAC	CGAAAACCA	GCAAGAAAAG	AATGAACAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACCTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

144. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV 1), wherein the DNA comprises the sequence CTCAAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6100 6110 6120
GAATGC TACTAATACC AATAGTAGTA

6130 6140 6150 6160 6170 6180
ATACCAATAG TAGTAGCGGG GAAATGATGA TGGAGAAAGG AGAGATAAAA AACTGCTCTT

6190 6200
TCAATATCAG CACAAGCATA.

145. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV 1), wherein the DNA comprises the sequence CTCAAATAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGA ACAGGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV 1), wherein the DNA comprises the sequence CTCAATAAGCTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATAATA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

6610 6620
CCAACACAA TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV 1), wherein the DNA comprises the sequence CTCAATAAGCTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV 1), wherein the DNA comprises the sequence CTCAATAAGCTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAAATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor Application of:
Marc ALIZON et al.
Application No.: 07/158,652
Filed: February 22, 1988
For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

)))))
Group Art Unit: 1637
Examiner: Jeffrey N. Fredman
Confirmation No.: 3369

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Siri

STATEMENT OF PIERRE TIOLLAIS
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claims 142-151 to the application.

I am informed that a copy of claims 142-151 is attached hereto.

I have read claims 142-151, which I am informed were added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claims 142-151 to the application.

The inventorship error resulting from the amendment of the claims by adding claims 142-151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: Moll..

Date: 24 mai 06

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Pending Claims

142. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAGCTGCCTTG, and the DNA comprises the sequence:

	5670	5680	5690	5700	
	A	AAGAGCAGAA	GACAGTGGCA	ATGAGAGTGA	
5710	5720	5730	5740	5750	5760
AGGAGAAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA
5770	5780	5790	5800	5810	5820
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG
5830	5840	5850	5860	5870	5880
TGTGGAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG
5890	5900	5910	5920	5930	5940
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAG
5950	5960	5970	5980	5990	6000
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA
6010	6020	6030	6040	6050	6060
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC
6070	6080	6090	6100	6110	6120
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGAAATGC	TACTAATACC	AATAGTAGTA
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200	6210	6220	6230	6240
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC
6250	6260	6270	6230	6290	6300
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT
6310	6320	6330	6340	6350	6360
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG

6370	6380	6390	6400	6410	6420
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT
6430	6440	6450	6460	6470	6480
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC
6490	6500	6510	6520	6530	6540
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG
6550	6560	6570	6580	6590	6600
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC
6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAAC	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAAGAGC	AGTGGGAATA	GGAGCTTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGGCAG	ACGGTCAATG	ACGCTGACGG

7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAACT	CATTTGCACC	ACTGCTGTGC	CTTCCAATGC	TAGTTGGAGT	AATAAATCTC
7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCCTTA	ATTGAAGAAC	CGAAAACCA	GCAAGAAAAG	AATGAACAAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATTA	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACCTAAAG	AA.		

143. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

						5700
						ATGAGAGTGA
5710	5720	5730	5740	5750	5760	
AGGAGAAATA	TCAGCACTTG	TGGAGATGGG	GGTGGAAATG	GGGCACCATG	CTCCTTGGGA	
5770	5780	5790	5800	5810	5820	
TATTGATGAT	CTGTAGTGCT	ACAGAAAAAT	TGTGGGTCAC	AGTCTATTAT	GGGGTACCTG	
5830	5840	5850	5860	5870	5880	
TGTGGAAAGGA	AGCAACCACC	ACTCTATTTT	GTGCATCAGA	TGCTAAAGCA	TATGATACAG	
5890	5900	5910	5920	5930	5940	
AGGTACATAA	TGTTTGGGCC	ACACATGCCT	GTGTACCCAC	AGACCCCAAC	CCACAAGAAC	
5950	5960	5970	5980	5990	6000	
TAGTATTGGT	AAATGTGACA	GAAAATTTA	ACATGTGGAA	AAATGACATG	GTAGAACAGA	
6010	6020	6030	6040	6050	6060	
TGCATGAGGA	TATAATCAGT	TTATGGGATC	AAAGCCTAAA	GCCATGTGTA	AAATTAACCC	
6070	6080	6090	6100	6110	6120	
CACTCTGTGT	TAGTTTAAAG	TGCACTGATT	TGGGGAATGC	TACTAATACC	AATAGTAGTA	
6130	6140	6150	6160	6170	6180	
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT	
6190	6200	6210	6220	6230	6240	
TCAATATCAG	CACAAGCATA	AGAGGTAAGG	TGCAGAAAGA	ATATGCATTT	TTTTATAAAC	
6250	6260	6270	6230	6290	6300	
TTGATATAAT	ACCAATAGAT	AATGATACTA	CCAGCTATAC	GTTGACAAGT	TGTAACACCT	
6310	6320	6330	6340	6350	6360	
CAGTCATTAC	ACAGGCCTGT	CCAAAGGTAT	CCTTGAGCC	AATTCCCATA	CATTATTGTG	
6370	6380	6390	6400	6410	6420	
CCCCGGCTGG	TTTGCGATT	CTAAAATGTA	ATAATAAGAC	GTTCAATGGA	ACAGGACCAT	
6430	6440	6450	6460	6470	6480	
GTACAAATGT	CAGCACAGTA	CAATGTACAC	ATGGAATTAG	GCCAGTAGTA	TCAACTCAAC	
6490	6500	6510	6520	6530	6540	
TGCTGTTGAA	TGGCAGTCTA	GCAGAAGAAG	AGGTAGTAAT	TAGATCTGCC	AATTCACAG	
6550	6560	6570	6580	6590	6600	
ACAATGCTAA	AACCATAATA	GTACAGCTGA	ACCAATCTGT	AGAAATTAAT	TGTACAAGAC	

6610	6620	6630	6640	6650	6660
CCAACAAACAA	TACAAGAAAA	AGTATCCGTA	TCCAGAGGGG	ACCAGGGAGA	GCATTGTTA
6670	6680	6690	6700	6710	6720
CAATAGGAAA	AATAGGAAAT	ATGAGACAAG	CACATTGTAA	CATTAGTAGA	GCAAAATGGA
6730	6740	6750	6760	6770	6780
ATGCCACTTT	AAAACAGATA	GCTAGCAAAT	TAAGAGAACAA	ATTGGAAAT	AATAAAACAA
6790	6800	6810	6820	6830	6840
TAATCTTAA	GCAATCCTCA	GGAGGGGACC	CAGAAATTGT	AACGCACAGT	TTTAATTGTG
6850	6860	6870	6880	6890	6900
GAGGGGAATT	TTTCTACTGT	AATTCAACAC	AACTGTTAA	TAGTACTTGG	TTTAATAGTA
6910	6920	6930	6940	6950	6960
CTTGGAGTAC	TGAAGGGTCA	AATAACACTG	AAGGAAGTGA	CACAATCACA	CTCCCATGCA
6970	6980	6990	7000	7010	7020
GAATAAAACA	ATTTATAAAC	ATGTGGCAGG	AAGTAGGAAA	AGCAATGTAT	GCCCCCTCCCA
7030	7040	7050	7060	7070	7080
TCAGCGGACA	AATTAGATGT	TCATCAAATA	TTACAGGGCT	GCTATTAACA	AGAGATGGTG
7090	7100	7110	7120	7130	7140
GTAATAACAA	CAATGGGTCC	GAGATCTTCA	GACCTGGAGG	AGGAGATATG	AGGGACAATT
7150	7160	7170	7180	7190	7200
GGAGAAGTGA	ATTATATAAA	TATAAAGTAG	TAAAAATTGA	ACCATTAGGA	GTAGCACCCA
7210	7220	7230	7240	7250	7260
CCAAGGCAAA	GAGAAGAGTG	GTGCAGAGAG	AAAAAAGAGC	AGTGGGAATA	GGAGCTTGT
7270	7280	7290	7300	7310	7320
TCCTTGGGTT	CTTGGGAGCA	GCAGGAAGCA	CTATGGCGC	ACGGTCAATG	ACGCTGACGG
7330	7340	7350	7360	7370	7380
TACAGGCCAG	ACAATTATTG	TCTGGTATAG	TGCAGCAGCA	GAACAATTG	CTGAGGGCTA
7390	7400	7410	7420	7430	7440
TTGAGGGCGCA	ACAGCATCTG	TTGCAACTCA	CAGTCTGGGG	CATCAAGCAG	CTCCAGGCAA
7450	7460	7470	7480	7490	7500
GAATCCTGGC	TGTGGAAAGA	TACCTAAAGG	ATCAACAGCT	CCTGGGGATT	TGGGGTTGCT
7510	7520	7530	7540	7550	7560
CTGGAAAATC	CATTTGCACC	ACTGCTGTGC	CTTGGAAATGC	TAGTTGGAGT	AATAAAATCTC

7570	7580	7590	7600	7610	7620
TGGAACAGAT	TTGGAATAAC	ATGACCTGGA	TGGAGTGGGA	CAGAGAAATT	AACAATTACA
7630	7640	7650	7660	7670	7680
CAAGCTTAAT	ACATTCCCTTA	ATTGAAGAAT	CGAAAACCA	GCAAGAAAAG	AATGAACAAG
7690	7700	7710	7720	7730	7740
AATTATTGGA	ATTAGATAAA	TGGGCAAGTT	TGTGGAATTG	GTTAACATA	ACAAATTGGC
7750	7760	7770	7780	7790	7800
TGTGGTATAT	AAAAATATTC	ATAATGATAG	TAGGAGGCTT	GGTAGGTTA	AGAATAGTTT
7810	7820	7830	7840	7850	7860
TTGCTGTACT	TTCTATAGTG	AATAGAGTTA	GGCAGGGATA	TTCACCATT	TCGTTTCAGA
7870	7880	7890	7900	7910	7920
CCCACCTCCC	AACCCCGAGG	GGACCCGACA	GGCCCGAAGG	AATAGAAGAA	GAAGGTGGAG
7930	7940	7950	7960	7970	7980
AGAGAGACAG	AGACAGATCC	ATTCGATTAG	TGAACGGATC	CTTAGCACTT	ATCTGGGACG
7990	8000	8010	8020	8030	8040
ATCTGCGGAG	CCTTGTGCCT	CTTCAGCTAC	CACCGCTTGA	GAGACTTACT	CTTGATTGTA
8050	8060	8070	8080	8090	8100
ACGAGGATTG	TGGAACTTCT	GGGACGCAGG	GGGTGGGAAG	CCCTCAAATA	TTGGTGGAAAT
8110	8120	8130			
CTCCTACAGT	ATTGGAGTCA	GGAACTAAG	AA.		

144. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence
 CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

6100	6110	6120			
GAATGC	TACTAATACC	AATAGTAGTA			
6130	6140	6150	6160	6170	6180
ATACCAATAG	TAGTAGCGGG	GAAATGATGA	TGGAGAAAGG	AGAGATAAAA	AACTGCTCTT
6190	6200				
TCAATATCAG	CACAAGCATA.				

145. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCATAAAGCTTGCCTTG, and the DNA comprises the sequence:

6260 6270 6280 6290 6300
T AATGATACTA CCAGCTATAC GTTGACAAGT TGTAACACCT

6310
CAGTCATTAC.

146. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCATAAAGCTTGCCTTG, and the DNA comprises the sequence:

6390 6400 6410 6420
A ATAATAAGAC GTTCAATGGA ACAGGACCAT

6430 6440
GTACAAATGT CAGCACAGTA.

147. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCATAAAGCTTGCCTTG, and the DNA comprises the sequence:

6490 6500 6510 6520 6530 6540
GTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTCACAG

6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATATAA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC

6610 6620
CCAACAAACAA TACAAGAAAA.

148. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCATAAAGCTTGCCTTG, and the DNA comprises the sequence::

6860 6870 6880 6890 6900
T AATTCAACAC AACTGTTAA TAGTACTTGG TTTAATAGTA

6910 6920 6930
CTTGGAGTAC TGAAGGGTCA AATAACACTG.

149. A cloned DNA of Human Immunodeficiency Virus Type 1 (HIV-1), wherein the DNA comprises the sequence CTCAATAAAGCTTGCCTTG, and the DNA comprises the sequence:

7540 7550 7560
GAATGC TAGTTGGAGT AATAAATCTC

7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAAATTACA

7630
CAAGCTTAAT.

150. A method of using the cloned DNA of any of claims 142-149 to detect HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant;
- (d) disrupting the virions to release HIV-1 RNA;
- (e) contacting the HIV-1 RNA with the HIV-1 DNA of any of claims 142-149; and
- (f) detecting hybridization between the HIV-1 RNA and the HIV-1 DNA.

151. A method of making HIV-1 RNA comprising:

- (a) providing a biological fluid comprising HIV-1 infected cells;
- (b) preparing a cell-free supernatant from the biological fluid;
- (c) isolating HIV-1 virions from the cell-free supernatant; and
- (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Marc ALIZON et al.) Group Art Unit: 1637
Application No.: 07/158,652) Examiner: Jeffrey N. Fredman
Filed: February 22, 1988) Confirmation No.: 3369
For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF ROBERT C. GALLO
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claim 151 to the application.

I am informed that a copy of claim 151 is attached hereto.

I have read claim 151, which I am informed was added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claim 151 to the application.

The inventorship error resulting from the amendment of the claims by adding claim 151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: Robert C. Gallo

Date: May 31, 06

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Claim 151

151. A method of making HIV-1 RNA comprising:
- (a) providing a biological fluid comprising HIV-1 infected cells;
 - (b) preparing a cell-free supernatant from the biological fluid;
 - (c) isolating HIV-1 virions from the cell-free supernatant; and
 - (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Marc ALIZON et al.) Group Art Unit: 1637
Application No.: 07/158,652) Examiner: Jeffrey N. Fredman
Filed: February 22, 1988) Confirmation No.: 3369
For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF MIKULAS POPOVIC
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claim 151 to the application.

I am informed that a copy of claim 151 is attached hereto.

I have read claim 151, which I am informed was added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claim 151 to the application.

The inventorship error resulting from the amendment of the claims by adding claim 151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: Mihirai Tigran
Date: June 1, 2006

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Claim 151

151. A method of making HIV-1 RNA comprising:
- (a) providing a biological fluid comprising HIV-1 infected cells;
 - (b) preparing a cell-free supernatant from the biological fluid;
 - (c) isolating HIV-1 virions from the cell-free supernatant; and
 - (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Marc ALIZON et al.) Group Art Unit: 1637
Application No.: 07/158,652) Examiner: Jeffrey N. Fredman
Filed: February 22, 1988) Confirmation No.: 3369
)
For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

STATEMENT OF SARNGADHARAN
(Being Added As An Inventor)

I have read U.S. application Serial No. 07/158,652.

I am informed that I was not named as an inventor in application Serial No. 07/158,652 when the application was filed in the U.S. Patent and Trademark Office.

I have been informed that the claims in U.S. application Serial No. 07/158,652 have been amended by adding claim 151 to the application.

I am informed that a copy of claim 151 is attached hereto.

I have read claim 151, which I am informed was added to U.S. application Serial No. 07/158,652 to claim previously unclaimed subject matter.

I understand that I am being added as an inventor to U.S. application Serial No. 07/158,652.

I have been informed that my addition as an inventor to U.S. application Serial No. 07/158,652 is necessitated by the amendment of the claims by adding claim 151 to the application.

The inventorship error resulting from the amendment of the claims by adding claim 151 to U.S. application Serial No. 07/158,652 occurred without deceptive intention on my part.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By: Mangalasarai G. Sornagadharan

Date: June 4, 2006

U.S. Patent Application No. 07/158,652
Filed: February 22, 1988
Inventors: Alizon et al.
Your Ref.: DI No.: 84-37
Our Ref.: 03495.0010-01000

Claim 151

151. A method of making HIV-1 RNA comprising:
- (a) providing a biological fluid comprising HIV-1 infected cells;
 - (b) preparing a cell-free supernatant from the biological fluid;
 - (c) isolating HIV-1 virions from the cell-free supernatant; and
 - (d) disrupting the virions to release HIV-1 RNA, thereby making HIV-1 RNA.



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

In re Application of:

Marc ALIZON et al.

Application No.: 07/158,652

Filed: February 22, 1988

)
Group Art Unit: 1637
)
Examiner: Jeffrey Norman Fredman
)
Confirmation No.: 3369
)
)

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

**CONSENT OF ASSIGNEE INSTITUT PASTEUR
TO AMENDMENT OF INVENTORSHIP**

Institut Pasteur, duly organized under the laws of France and having its principal place of business at 28, rue du Docteur Roux, 75724 Paris Cedex 15, France, as an Assignee of the above-identified application, does hereby consent to amendment of inventorship from the inventive entity:

Marc Alizon
Pierre Sonigo
Simon Wain-Hobson
Stewart Cole
Oliver Danos

to the inventive entity:

Solange Chamaret
Claudine Axler-Blin
Françoise Rey
Marie-Therese Nugeyre
Jacqueline Gruest
Charles Dauguet
Willy Rozenbaum
Christine Rouzioux
François Brun-Vezinet
Luc Montagnier
Jean-Claude Chermann
Françoise Barre-Sinoussi
Pierre Tiollais
Marc Alizon
Pierre Sonigo
Simon Wain-Hobson
Stewart Cole
Oliver Danos
Robert C. Gallo
Mikulas Popovic
Mangalasseri G. Sarngadharan

The undersigned is authorized to act on behalf of the Assignee, Institut Pasteur.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,

A. Dautry

By: _____
Name: Alice Dautry
Title: President
For Assignee: Institut Pasteur

Dated: _____

June 1st, 2006



PATENT
Customer No. 22,852
Attorney Docket No. 3495.0010-01

In re Application of:

) Group Art Unit: 1637

Marc ALIZON et al.

) Examiner: Jeffrey Norman Fredman

Application No.: 07/158,652

) Confirmation No.: 3369

Filed: February 22, 1988

)

For: CLONED DNA SEQUENCE
RELATED TO THE GENOMIC RNA
OF HUMAN IMMUNODEFICIENCY
VIRUS TYPE 1 (HIV-1)

)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

**CONSENT OF ASSIGNEE THE UNITED STATES OF AMERICA
TO AMENDMENT OF INVENTORSHIP**

The United States of America as represented by the Secretary of the Department of Heath and Human Services, having its principal place of business at 900 Rockville Pike, Bethesda, Maryland 20892, as an Assignee of the above-identified application, does hereby consent to amendment of inventorship from the inventive entity:

Marc Alizon
Pierre Sonigo
Simon Wain-Hobson
Stewart Cole
Oliver Danos

to the inventive entity:

Robert C. Gallo
Mikulas Popovic
Mangalasseri G. Sarngadharan
Solange Chamaret
Claudine Axler-Blin
Françoise Rey
Marie-Therese Nugeyre
Jacqueline Gruest
Charles Dauguet
Willy Rozenbaum
Christine Rouzioux
François Brun-Vezinet
Luc Montagnier
Jean-Claude Chermann
Françoise Barre-Sinoussi
Pierre Tiollais
Marc Alizon
Pierre Sonigo
Simon Wain-Hobson
Stewart Cole
Oliver Danos

The undersigned is authorized to act on behalf of the Assignee, the United States of America as represented by the Secretary of the Department of Health and Human Services.

I hereby declare that all statements made of my own knowledge and belief are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,

By: Jack Spiegel
Name: JACK SPIEGEL (REG# 34,477)
Title: SENIOR ADVISOR FOR TECHNOLOGY TRANSFER OPERATIONS
For Assignee: The United States of America
as represented by the
Secretary of the Department of
Health and Human Services.

Dated: JUNE 5, 2006

1110245